

# PHENIX WEEKLY PLANNING



1/14/2010  
Don Lynch

# Ongoing Tasks for Run 10

## Task

Start Date

End Date

Install rack components in RPC3 N racks

in progress

1/31/10

Attach cables to RPC3 N racks and to Detector  $\frac{1}{2}$  octants

in progress

1/31/10

Install heaters and thermostat(s) for RPC3N thermal control

in progress

1/31/10

Send mass flowmeters out for recalibration (DC/PC, MuID, TOF.W)

In Progress

1/31/10

AH Crane 110 switch for lockout

In Progress

6/30/09

## PHENIX Startup Checklist Status

### Item

Responsibility

Status

Item 1: ESRC relevant items completed

Wood Stairs

Phillips

Post Start

Update Work procedures

Cirnigliaro, Lynch

Post Start

Item 4: HBD Mock Up

Lynch

After Run 10

Item 11: Fire Pull Box

Philips

Post Start

Item 12: Dumb Waiter

Lynch

Waiting For  
LSC Response

## PHYSICS Running Under Way

1<sup>st</sup> Scheduled Maintenance Day:

RPC Electronics Installation, LV Power supply, 10 Megapak modules  
& fan trays for NEVIS crate & Temp/Humid sensor in gap 5

Both Carriages retracted

MuTrigger FEE Rad badges changed

MuTr adjustments

RICH/ERT 2 Trigger boards swapped

PC FEM replaced, another FEM troublesome but inaccessible

TOFW SF6 gas enabled

TECHNICAL SUPPORT 2010

## Next Week:

Martin Luther King Day Holiday (Monday 1/18)

No Scheduled Maintenance

Tech Support as needed

Planning and Preparation for 2010 Shutdown

RPC Factory Annual Review preparation

TECHNICAL SUPPORT 2010

# Result: 3 new beampipe sections

Alum/Be  
central section

North 1-5/8" to  
3" transition

South 1-5/8" to  
3" transition

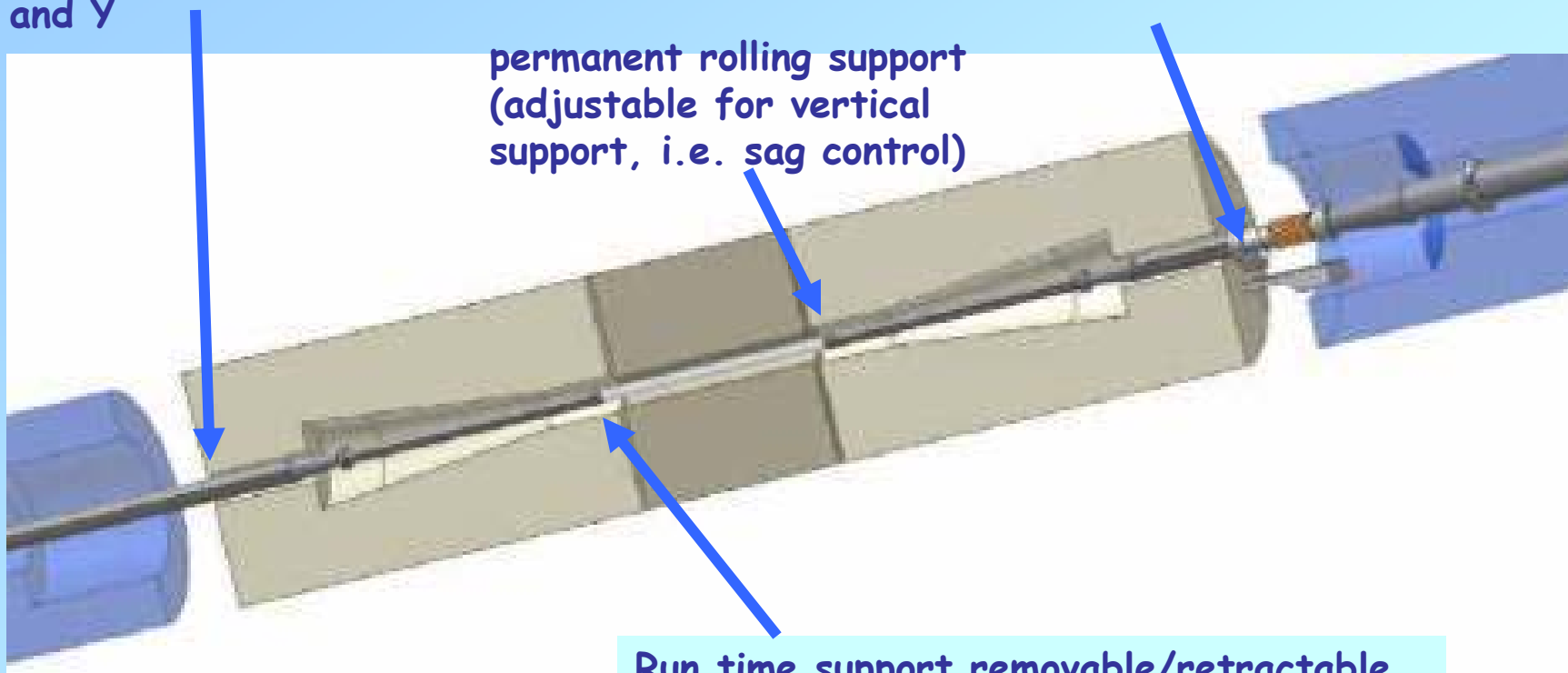
Existing bellows  
and components  
south of here

Existing bellows  
and components  
north of here

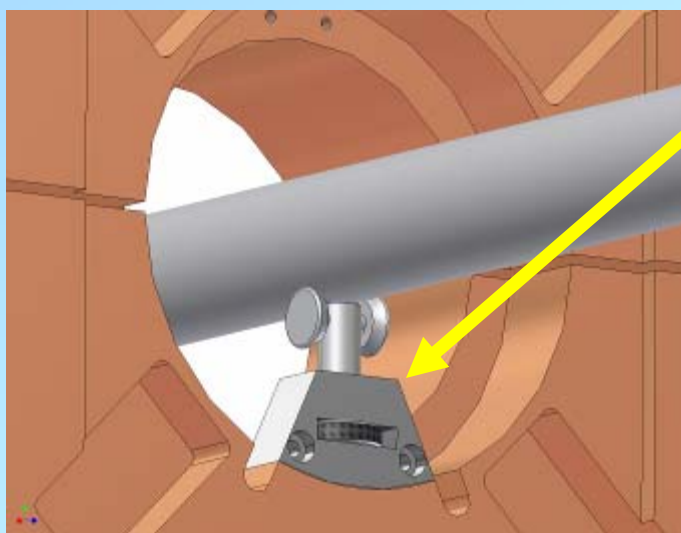
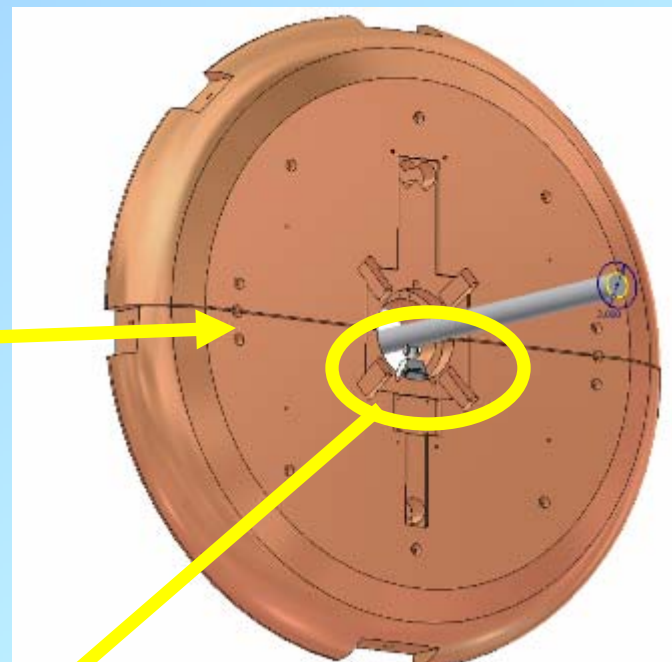
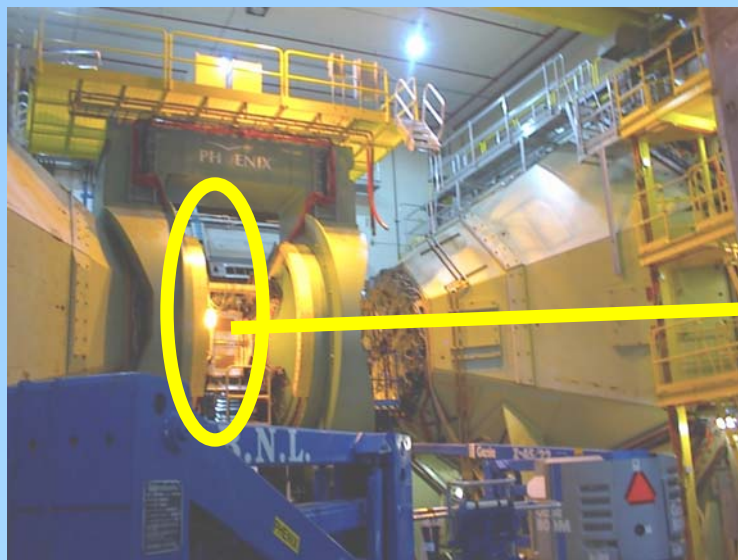
# Beampipe supports

TECHNICAL SUPPORT NO-0  
permanent rolling support,  
in BBC cavity, adjustable  
when MMS is south, CM  
is north. New support,  
with fine adjustment in X  
and Y

#1 existing permanent fixed  
support → Change to allow for  
finer X and Y adjustment,  
adjustable when CM is south



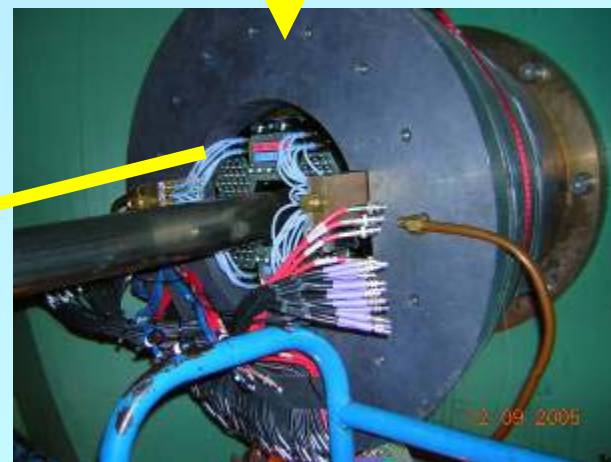
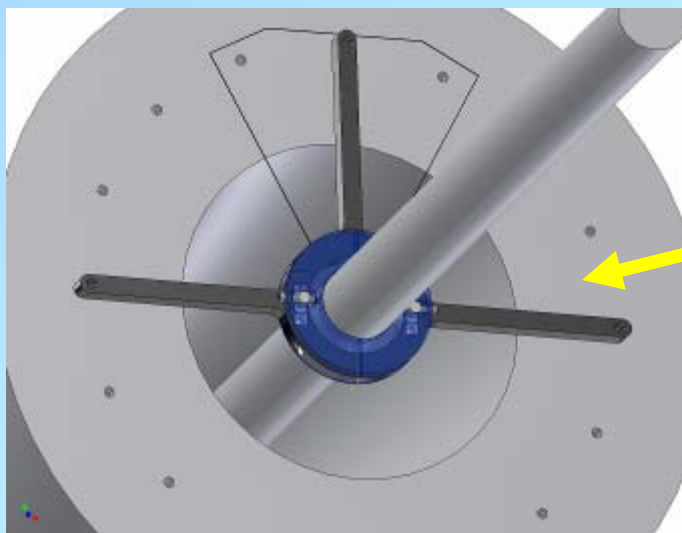
# CM central BP supports (2 req'd)





# South Flowerpot BP support

TECHNICAL SUPPORT NO-0



1/14/2010



## Old Beampipe De-Installation scheme.

1. Prior to shutdown: PHENIX Choreography for EC, MMS and CM for beampipe installation. Installation support parts, arrange AH tracks as appropriate.
2. Standard Commencing shutdown tasks: prep EC for move, close north & south gate valves, take down collars, move MMS south, Move EC to AH, Cart to IR
3. Remove MMS lampshade
4. Remove HBD and RXNP, remove cart, remove BBC's and MPC's
5. Break Vacuum at Bellows between CM and MMS and between MMS and MuID. Temporary support for south end of Be/SS pipe.
6. Move MMS to AH MMS with south 3-5 transition and bellows, then remove beampipe and bellows.
7. Move CM south. Separate Be/SS beampipe from north bellows and remove.
8. (?) Disconnect north 3-5 transition from inside north square hole. Remove bellows from south end and transition through north tunnel (?)

## New Beampipe Installation Scheme

1. Rework north bellows with antisquirm guide rods
2. Install new north 3-5 transition (including bakeout wrap and rolling supports) through north tunnel (?) and modified north bellows with temporary support on south end
3. Install new fine adjustment support for north end of north 1-5/8" to 3" transition, new/modified CM Be beampipe vertical supports, BBC center beampipe support and temporary/pre-alignment support.
4. Pre-assemble north and south 1-5/8" to 3" transitions to new Be beampipe.
5. Install central beampipe pre-assembly into CM and attach to north bellows.
6. Pre-align the central beampipe to RHIC nominal beam path using north and south fine adjustment supports, temporary south support and central sag supports.
7. Install new south 3" to 5" transition and existing south bellows in MMS
8. Install new 5" spool in south square hole with temporary support.
9. Move CM North adjust central beampipe assembly alignment
10. Move MMS into IR and align with CM. Attach south bellows to central beampipe assembly and south end of south 3" to 5" transition to new south spool. Align BP to RHIC nominal orbit.

## New Beampipe Installation Scheme (Cont.'d)

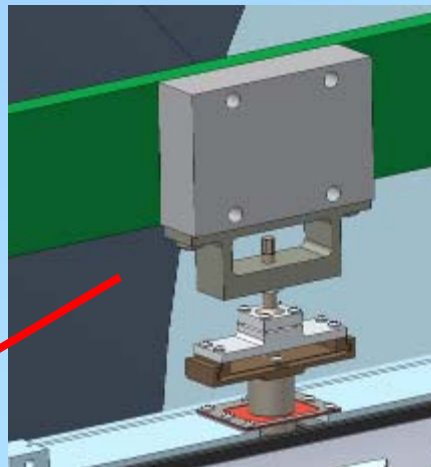
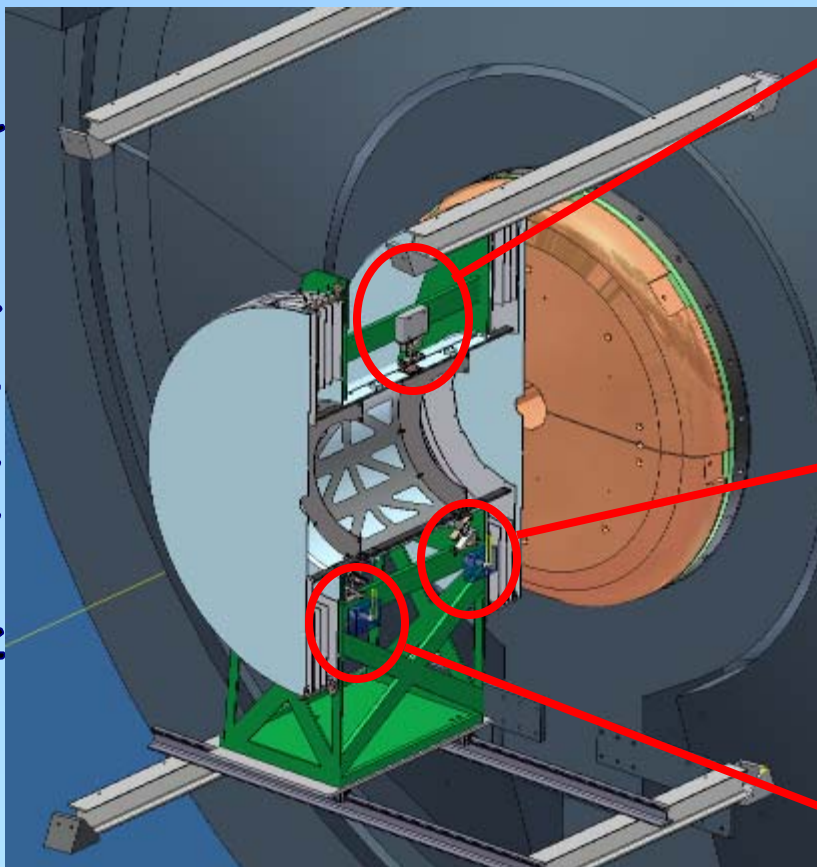
1. Bakeout procedure TBD
2. After Bakeout, Reinstall MPC's and BBC's
3. After Bakeout and CM in run position for next run, final beampipe alignment/survey

TECHNICAL  
SUPPORT  
2010

# VTX Installation Plan

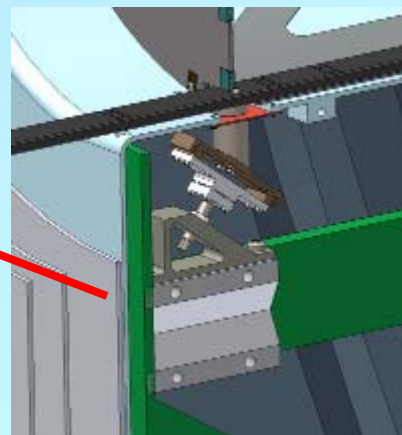
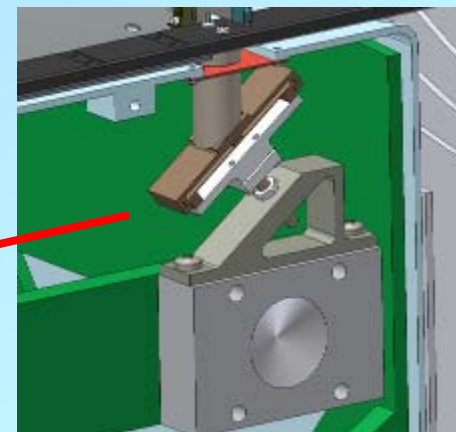
Kinematic mounts for mating east and west detector halves

TECHNICAL SUPPORT 2010



2 DOF (Y & Z)

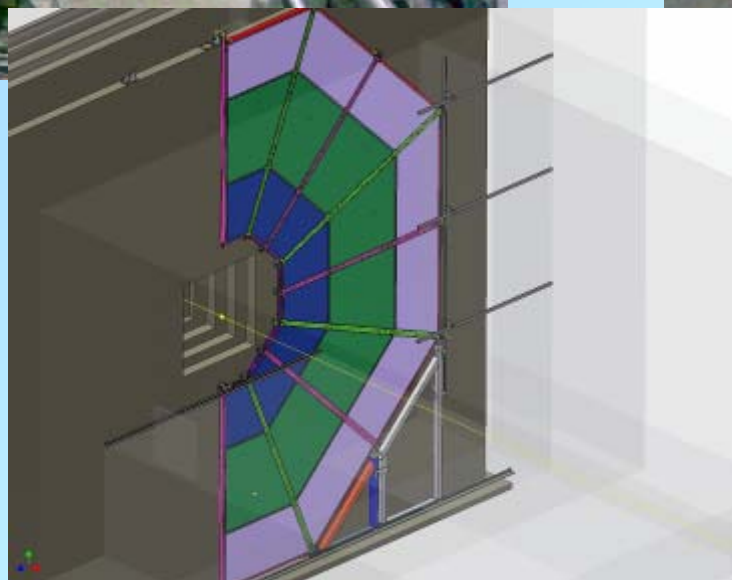
0 DOF



6 interface points  
w/ HYTEC

1 DOF (Z)

# RPC3 South Installation Plan



TECHNICAL SUPPORT NO-0



# 2009 Building Maintenance Issues

TECHNICAL SUPPORT 2010

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall and over door between control room and elect. ass'y room.
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- General maintenance for Trailer Offices and Gas Mixing House stairs, ramps and siding, gutters, etc. (cleaning and repairing worn/rotted wood): Carter has placed work orders
- Trailer Office Modifications planning in progress





## Run 10 Tasks

Start Date      End Date

TECHNICAL SUPPORT 2010

|  |                  |      |
|--|------------------|------|
| Run 10   | In progress      | 6/1  |
| VTX Fabrication and Installation Plan (1st Draft)                    | Done             | Done |
| RPC3 South Fabrication and Installation Plan (1 <sup>st</sup> Draft) | Done             | Done |
| Receive New Beampipe   | On Order         | 1/31 |
| Design Beam pipe supports  | In progress      | 1/15 |
| Update RPC3 N design for RPC3 S                                      | In progress      | 1/15 |
| RPC Factory Annual Safety Review                                     | Prep in Progress | 1/31 |
| Design support structure, alignment scheme for VTX                   | In progress      | 1/31 |
| Fabricate beam pipe supports   | 1/15             | 4/1  |
| Beampipe NEG coating (CERN)  | 2/1              | 5/1  |
| Fabricate/procure parts for RPC3 S installation                      | 1/1              | 4/1  |
| Fabricate/procure parts for VTX installation                         | 2/1              | 5/1  |
| End of run 10  | 6/1              | 6/1  |
| Prep IR for shutdown   | 6/1              | 7/1  |
| Complete unfinished business for MuTrgr FEE & RPC3 North             | 6/1              | 8/1  |
| Install Beam pipe  | 7/1              | 10/1 |
| Install VTX  | 8/1              | 10/1 |
| Install RPC3 South   | 6/1              | 10/1 |

1/14/2010

# Shutdown 2010 Tasks

Start Date    End Date

TECHNICAL SUPPORT 2010

|  |     |      |
|--|-----|------|
| Prep IR for shutdown                                     | 6/1 | 7/1  |
| Complete unfinished business for MuTrgr FEE & RPC3 North | 6/1 | 8/1  |
| MuTrigger MMS cable tray                                 |     |      |
| RPC3N electronics and gas system completion              |     |      |
| Remove HBD and RXNP                                      |     |      |
| Install Beam pipe  | 7/1 | 10/1 |
| Install VTX  | 8/1 | 10/1 |
| Install RPC3 South                                       | 6/1 | 10/1 |

#### 4. PHENIX Procedure Review Current Status:

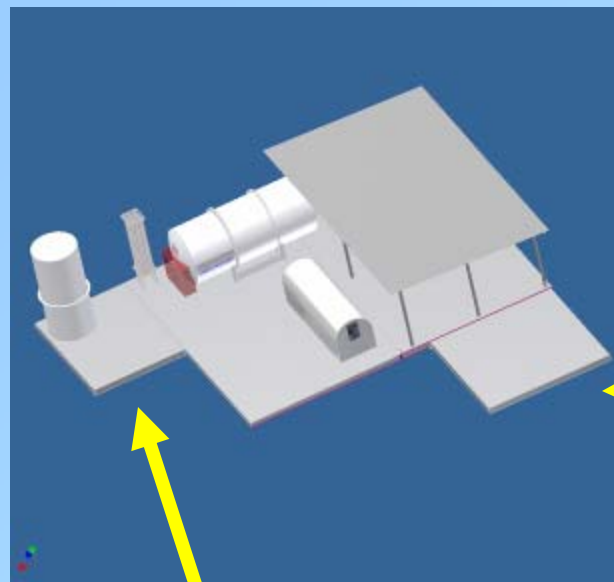
##### 147 Procedures Identified

- 80 Made Inactive (not currently in use, will require revision to re-activate if and when necessary, available for reference purposes)
  - 12 CAD procedures relevant to PHENIX, all are current and up-to-date.
    - All currently under review,
    - 3 to be de-activated
  - 40 PHENIX approved procedures.
    - 1 is currently under review
    - 39 are current and up-to-date
  - 15 Proposed/Draft Procedures (never previously formalized)
- New Spreadsheet Tracking Application to keep track of Procedure revisions and updates - Done and Working
- Web retrieval of latest procedures now available from PHENIX Internal:

[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_procedures.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_procedures.htm)

## New Argon Dewar and Empty Gas Bottle Storage Area

PHENIX



Pad for  
Empty Gas  
Bottles to  
go here



Pad for argon  
Dewar to go here



TECHNICAL SUPPORT 2010

1/14/2010

## 1. Revised CAD OPM for Snow Removal

- PHENIX is #6 on the CAD priority list for snow removal (after emergency roads, bldgs 940, 911, 901, 1005R and Star)
- Snow removal requests and follow up when snow removal efforts are inadequate should be placed to MCR or CAS. Maintenance Coordinators (Paul Sampson, Ray Zaharatos and John Benante) may also be called if necessary.
- Emergencies are prioritized as follows:
  - Life Safety (risk of life or serious injury)
  - Property Emergency (risk of permanent or expensive property damage)
  - Machine Downtime (risk of temporary loss of operations)

## 2. Link to BNL Safety Web Page added to PHENIX Planning web page:

[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)

# Where To Find PHENIX Engineering Info



MLK Holiday next week

Monday, 1/18/2010



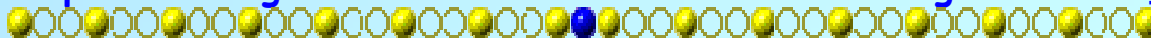
*JETS are on a roll !!*

*vs Chargers in San Diego, Sunday 4:45 PM CBS TV*

*My Prediction: JETS 37 Chargers 13*

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)



1/14/2010